



6BF6

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# TWIN DIODE—MEDIUM-MU TRIODE

MINIATURE TYPE

## GENERAL DATA

### Electrical:

Heater, for Unipotential Cathode:

Voltage. . . . . 6.3 . . . . . ac or dc volts

Current. . . . . 0.3 . . . . . amp

Direct Interelectrode Capacitances (Approx.):

	With External Shield <sup>▲</sup>	Without External Shield	
Triode Unit:			
Grid to Plate. . . . .	2.0	2.0	μμf
Input. . . . .	1.8	1.8	μμf
Output . . . . .	1.1	0.8	μμf
Plate of Diode Unit			
No.1 to Cathode. . . .	1.4	0.7	μμf
Plate of Diode Unit			
No.2 to Cathode. . . .	1.5	0.1	μμf
Plate of Diode Unit			
No.1 to Triode Grid. .	0.06 max.	0.07 max.	μμf
Plate of Diode Unit			
No.2 to Triode Grid. .	0.05 max.	0.06 max.	μμf

### Mechanical:

Mounting Position. . . . . Any

Maximum Overall Length . . . . . 2-1/8"

Maximum Seated Length. . . . . 1-7/8"

Length from Base Seat to

Bulb Top (excluding tip) . . . . . 1-1/2" ± 3/32"

Maximum Diameter . . . . . 3/4"

Bulb . . . . . T-5-1/2

Base . . . . . Small-Button Miniature 7-Pin (JETEC No.E7-1)

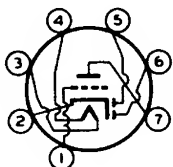
Basing Designation for BOTTOM VIEW . . . . . 7BT

Pin 1—Triode Grid

Pin 2—Cathode

Pin 3—Heater

Pin 4—Heater



Pin 5—Diode  
Plate No.2

Pin 6—Diode  
Plate No.1

Pin 7—Triode Plate

## TRIODE UNIT - Class A<sub>1</sub> Amplifier

### Maximum Ratings, Design-Center Values:

PLATE VOLTAGE. . . . . 300 max. volts

PLATE DISSIPATION. . . . . 2.5 max. watts

### PEAK HEATER-CATHODE VOLTAGE:

Heater negative with respect to cathode. . . 90 max. volts

Heater positive with respect to cathode. . . 90 max. volts

<sup>▲</sup> According to RTMA Standard ET-109A with External Shield No.315 tied to cathode.

← Indicates a change.

NOV. 1, 1952

TUBE DEPARTMENT

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

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## TWIN DIODE—MEDIUM-MU TRIODE

**Typical Operation with Transformer Coupling:**

Plate Voltage. . . . .	250	volts
Grid Voltage. . . . .	-9	volts
Amplification Factor. . . . .	16	
Plate Resistance (Approx.) . . . . .	8500	ohms
Transconductance. . . . .	1900	$\mu$ mhos
Plate Current. . . . .	9.5	ma
Load Resistance. . . . .	10000	ohms
Total Harmonic Distortion. . . . .	6.5	%
Power Output. . . . .	300	mw

**Typical Operation as Resistance-Coupled Amplifier:**

See RESISTANCE-COUPLED AMPLIFIER CHART  
at front of this Section

**DIODE UNITS****Maximum Ratings, Design-Center Values:**

PLATE CURRENT (For each diode) . . . . . 1.0 max. ma

**Diode Considerations:**

Consideration of these units, including typical circuits and diode curves, is given at the front of this section. Diode biasing of the triode unit of the 6BF6 is not suitable.

*Curves shown under Types 6R7 and 6SR7  
also apply to the triode unit of the 6BF6*

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